

Stopray

magnetron coated glazings combining solar control and low emissivity



You have printed

Titanium 37T, Indigo 48T, Lime 61T, Energy N, Energy NT, Silver 43/25, Vision-50, Vision-50T, Ultra-60, Vision-60T, Vision-60, Vision-36T, Ultra-50 on Clearvision

The logo for AGC, consisting of the letters 'AGC' in a bold, blue, sans-serif font. A small red square is positioned between the 'A' and 'G'.

Solar-control glazing with thermal insulation

The solar control function is achieved by applying a selective metal coating.

- High light transmission, low solar heat throughput
- Stopray solar-control glazing with thermal insulation is ideal for all climates: combines solar control in summer with thermal insulation in winter
- Various colours, including an extraordinary neutral, low light-reflection range

Application: always in double glazed units. Monolithic glass available to processors

Benefits

- High level of light transmission, low level of internal solar heat throughput
- Selectivity (relationship between LT and SF = maximum 2): excellent for the range of neutral colours
- Stopray solar-control glazing with thermal insulation is suitable for use in all climates: combines solar control in the summer with thermal insulation in the winter. Particularly well suited to tertiary buildings with at the same time keeping energy costs to a minimum
- Finish: wide range of light reflection and light transmission levels
- Look: different colours, extensive range of neutral colours

Titanium 37T

Body tinted grey glass with a high performance toughenable coating. Superb light and energy performance, it is an all-climate glass. Low interior and exterior light reflection rating give it an attractive colour. Its coating can withstand the toughening process and can be curved and enamelled. Substantial asset for glass processors looking for adapted logistical solutions.

Enjoy the performances of combining AGC's soft and hard coatings....a whole range of 0.9 U-g value products! By combining the Stopray coating in #2 and a Planibel G Fast in #4 you can significantly enhance the thermal performances of your insulating glass, reaching then a Ug-value of 0.9 W/(m².K)!



Performances

Titanium 37T

Structure	Light properties (EN 410)		Energy Properties			Ug-Value W/(m ² .K)
	LT%	LR%	EA%	SF%	SC%	
6 - 12 Air - 6	36	6	64	27	0.31	1.5
6 - 12 Ar 90% - 5	37	6	64	26	0.3	1.2
6 - 12 Ar 90% - 6	36	6	64	26	0.3	1.2
6 - 15 Air - 6	36	6	64	27	0.31	1.3
6 - 15 Ar 90% - 4	37	6	64	26	0.3	1.0
6 - 15 Ar 90% - 6	36	6	64	26	0.3	1.0
6 - 16 Ar 90% - 4	37	6	64	26	0.3	1.0

Indigo 48T

Dark Blue body-tinted glass with a toughenable, high-performance coating. Excellent light and energy performance, making it an ideal all-climate glass. Low interior and exterior light reflection give it a pleasing colour. The high-performance coating can be toughened, bent and screen-printed. A significant benefit for processors looking for the right logistical solutions to their needs.

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Performances

Indigo 48T

Structure	Light properties (EN 410)		Energy Properties			Ug-Value W/(m ² .K)
	LT%	LR%	EA%	SF%	SC%	
6 - 12 Air - 6	48	8	67	30	0.34	1.5
6 - 12 Ar 90% - 6	48	8	67	29	0.33	1.2
6 - 15 Air - 6	48	8	67	29	0.33	1.3
6 - 15 Ar 90% - 4	48	8	66	28	0.32	1.0
6 - 15 Ar 90% - 6	48	8	67	28	0.32	1.0
6 - 16 Ar 90% - 4	48	8	66	28	0.32	1.0

Lime 61T

Body tinted green glass with a high performance toughenable coating. Superb light and energy performance, it is an all-climate glass. Low interior and exterior light reflection rating give it an attractive colour. Its coating can withstand the toughening process and can be curved and enamelled. Substantial asset for glass processors looking for adapted logistical solutions.

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Performances

Lime 61T

Structure	Light properties (EN 410)		Energy Properties			Ug-Value W/(m ² .K)
	LT%	LR%	EA%	SF%	SC%	
6 - 12 Air - 6	60	10	63	33	0.38	1.5
6 - 12 Ar 90% - 6	60	10	63	32	0.37	1.2
6 - 15 Air - 6	60	10	63	32	0.37	1.3
6 - 15 Ar 90% - 4	61	10	63	32	0.37	1.0
6 - 15 Ar 90% - 6	60	10	63	32	0.37	1.0
6 - 16 Ar 90% - 4	61	10	63	32	0.37	1.0

Stopray

magnetron coated glazings combining solar control and low emissivity



Energy N

Features a highly neutral external appearance very close to that of clear double glazing

Has a good light and energy performance

> See Brands > Planibel clear > Clearvision



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magnetron coated glazings combining solar control and low emissivity



Energy NT

Toughenable soft-coated low-E glass with enhanced solar protection

Assembled into double glazing (in #2), Energy NT is similar to Energy N in terms of neutrality, light transmission, reflection and performances. Its coating can withstand the toughening process, offering more safety.

Stopray Energy N and Stopray Energy NT are a perfect match.

Residential and commercial applications.

Stopray Elite is also available on Clearvision, AGC Flat Glass Europe's extra-clear glass

> See Brands > Planibel clear > Clearvision



Silver 43/25

Silver-grey glass

Prized for its superb solar control

Ideal for buildings located in hot regions and those with facades exposed to sunlight

Stopray Silver is also available on Clearvision, AGC Glass Europe's extra-clear glass

> See Brands > Planibel clear > Clearvision



Performances

Silver 43/25

Structure	Light properties (EN 410)		Energy Properties			Ug-Value W/(m².K)
	LT%	LR%	EA%	SF%	SC%	
6 - 12 Air - 6	43	47	27	27	0.31	1.5
6 - 12 Ar 90% - 6	43	47	27	27	0.31	1.2
6 - 15 Air - 6	43	47	27	27	0.31	1.3
6 - 15 Ar 90% - 4	43	47	27	26	0.3	1.0
6 - 15 Ar 90% - 6	43	47	27	26	0.3	1.0
6 - 16 Ar 90% - 4	43	47	27	26	0.3	1.0

Vision-50

Neutral aesthetics

Improved tint offering a better rendering of the colours

The best compromise LT/SF for almost all kinds of climates

Available on AGC's extra-clear glass as Stopray Vision-50 on Clearvision

> See Brands > Planibel clear > Clearvision

Enjoy the performances of combining AGC's soft and hard coatings...a whole range of 0.9 U-g value products!

By combining the Stopray coating in #2 and a Planibel G Fast in #4 you can significantly enhance the thermal performances of your insulating glass, reaching then a Ug-value of 0.9 W/(m².K)!



Performances

Vision-50

Structure	Light properties (EN 410)		Energy Properties			Ug-Value W/(m ² .K)
	LT%	LR%	EA%	SF%	SC%	
44.2 - 12 Ar 90% - 4 - 12 Ar 90% - 44.2 st	43	20	52	24	0.28	0.7
44.2 - 15 Air - 44.2 st	48	18	50	27	0.31	1.3
44.2 - 15 Air - 44.4 st	48	18	50	27	0.31	1.3
44.2 - 15 Ar 90% - 4 - 15 Ar 90% - 44.2 st	44	20	52	25	0.29	0.8
44.2 - 15 Ar 90% - 4 - 15 Ar 90% - 44.2 st	43	20	52	24	0.28	0.6
6 - 12 Air - 4 - 12 Air - 8	45	21	44	27	0.31	1.2
6 - 12 Air - 6	49	19	42	29	0.33	1.5
6 - 12 Ar 90% - 4 - 12 Ar 90% - 33.2	44	20	46	25	0.29	0.7
6 - 12 Ar 90% - 4 - 12 Ar 90% - 33.2	45	21	44	26	0.3	1.0
6 - 12 Ar 90% - 4 - 12 Ar 90% - 4	45	21	44	26	0.3	1.0
6 - 12 Ar 90% - 4 - 12 Ar 90% - 44.2	44	21	45	26	0.3	1.0
6 - 12 Ar 90% - 4 - 12 Ar 90% - 44.4	44	21	45	26	0.3	1.0
6 - 12 Ar 90% - 4 - 12 Ar 90% - 44.6	45	21	45	26	0.3	1.0

6 - 12 Ar 90% - 4 - 12 Ar 90% - 44.6	44	21	45	26	0.3	1.0
6 - 12 Ar 90% - 4 - 12 Ar 90% - 4	45	20	45	25	0.29	0.7
6 - 12 Ar 90% - 4 - 12 Ar 90% - 8	44	20	46	25	0.29	0.7
6 - 12 Ar 90% - 4 - 15 Ar 90% - 44.4	45	21	45	26	0.3	0.9
6 - 12 Ar 90% - 6	49	19	42	28	0.32	1.2
6 - 15 Air - 6	49	19	42	28	0.32	1.3
6 - 15 Ar 90% - 3 - 15 Ar 90% - 33.2	46	21	44	26	0.3	0.8
6 - 15 Ar 90% - 33.2	49	19	43	28	0.32	1.0
6 - 15 Ar 90% - 4	50	19	42	28	0.32	1.0
6 - 15 Ar 90% - 4 - 15 Ar 90% - 4	46	21	43	26	0.3	0.8
6 - 15 Ar 90% - 4 - 15 Ar 90% - 44.2	44	20	46	25	0.29	0.6
6 - 15 Ar 90% - 4 - 15 Ar 90% - 44.2	45	21	45	26	0.3	0.8
6 - 15 Ar 90% - 4 - 15 Ar 90% - 44.4	45	21	45	26	0.3	0.8
6 - 15 Ar 90% - 4 - 15 Ar 90% - 44.4	45	21	45	26	0.3	0.8
6 - 15 Ar 90% - 4 - 15 Ar 90% - 44.6	45	21	45	26	0.3	0.8
6 - 15 Ar 90% - 4 - 15 Ar 90% - 44.6	45	21	45	26	0.3	0.8
6 - 15 Ar 90% - 4 - 15 Ar 90% - 8	45	21	44	26	0.3	0.8
6 - 15 Ar 90% - 4 - 15 Ar 90% - 4	45	20	45	25	0.29	0.6
6 - 15 Ar 90% - 4 - 15 Ar 90% - 8	44	20	46	25	0.29	0.6
6 - 15 Ar 90% - 44.2	49	19	43	28	0.32	1.0
6 - 15 Ar 90% - 44.4	49	19	44	28	0.32	1.0
6 - 15 Ar 90% - 44.4	49	19	44	28	0.32	1.0
6 - 15 Ar 90% - 44.6	49	19	44	28	0.32	1.0
6 - 15 Ar 90% - 44.6	49	19	44	28	0.32	1.0
6 - 15 Ar 90% - 6	49	19	42	28	0.32	1.0
6 - 15 Ar 90% - 8	49	19	43	28	0.32	1.0
6 - 16 Ar 90% - 4	50	19	42	28	0.32	1.0

Vision-50T

The first toughenable Stopray on clear float

Very neutral aesthetics

Excellent performances Ease of toughening

Stopray Vision-50T is also available on Clearvision, AGC Glass Europe's extra-clear glass

> See Brands > Planibel clear > Clearvision

Enjoy the performances of combining AGC's soft and hard coatings...a whole range of 0.9 U-g value products! By combining the Stopray coating in #2 and a Planibel G Fast in #4 you can significantly enhance the thermal performances of your insulating glass, reaching then a Ug-value of 0.9 W/(m².K)!



Performances

Vision-50T

Structure	Light properties (EN 410)		Energy Properties			Ug-Value W/(m ² .K)
	LT%	LR%	EA%	SF%	SC%	
6 - 12 Air - 6	50	20	37	32	0.37	1.5
6 - 12 Ar 90% - 6	50	20	37	31	0.36	1.2
6 - 15 Air - 6	50	20	37	31	0.36	1.3
6 - 15 Ar 90% - 4	50	20	37	31	0.36	1.0
6 - 15 Ar 90% - 6	50	20	37	31	0.36	1.0
6 - 16 Ar 90% - 4	50	20	37	31	0.36	1.0

Ultra-60

Stopray Ultra-60 is a high performance soft-coated glazing with an innovative triple silver coating, applied in a vacuum, allowing you to maximise the light transmission while significantly reducing the solar heating. Moreover, it offers you the best selectivity, equal to 2,14 !

Key benefits :

- The very high light transmission level (L.T. = 60%) maximises natural light, yielding all the benefits of large indoor spaces bathed in light year round.
- The low solar factor (S.F. = 28%) reduces solar gain, resulting in significantly lower air conditioning costs.
- Superb thermal insulation (thanks to a Ug value of 1.0 W/(m².K)) minimises energy losses, resulting in major energy savings.

In combination with Stratobel, AGC's safety glazing range, Stopray Ultra-60 allows you to benefit from additional safety performance. You can even benefit from high sound insulation performance by having Stopray Ultra-60 on Stratophone, AGC's sound insulation glazing range.



Vision-60T

Stopray Vision-60T combines solid thermal and solar performance.

Architects value it for its transparency and appearance.

It is an addition to AGC's range of toughenable, high-performance coated glasses.

Stopray Vision-60T is also available on Clearvision, AGC Glass Europe's extra-clear glass

> See Brands > Planibel clear > Clearvision

Enjoy the performances of combining AGC's soft and hard coatings...a whole range of 0.9 U-g value products! By combining the Stopray coating in #2 and a Planibel G Fast in #4 you can significantly enhance the thermal performances of your insulating glass, reaching then a Ug-value of 0.9 W/(m².K)!



Performances

Vision-60T

Structure	Light properties (EN 410)		Energy Properties			Ug-Value W/(m ² .K)
	LT%	LR%	EA%	SF%	SC%	
6 - 12 Air - 6	59	14	39	37	0.43	1.5
6 - 12 Ar 90% - 6	59	14	39	37	0.43	1.2
6 - 15 Ar 90% - 4	60	14	38	37	0.43	1.0
6 - 15 Ar 90% - 6	59	14	39	37	0.43	1.0
6 - 16 Ar 90% - 4	60	14	38	37	0.43	1.0

Vision-60

Stopray Vision-60 combines high light transmission with thermal and solar performances.

Very neutral and transparent glass.

Stopray Vision-60 is matchable in reflection with the toughenable version, Stopray Vision-60T;

this ensures that facades have a perfect aesthetic.

To improve the neutrality of the glass, Stopray Vision-60 is also available on Clearvision, AGC Glass Europe's extra-clear glass.

> See Brands > Planibel clear > Clearvision



Enjoy the performances of combining AGC's soft and hard coatings....a whole range of 0.9 U-g value products! By combining the Stopray coating in #2 and a Planibel G Fast in #4 you can significantly enhance the thermal performances of your insulating glass, reaching then a Ug-value of 0.9 W/(m².K)!

Performances

Vision-60

Structure	Light properties (EN 410)		Energy Properties			Ug-Value W/(m².K)
	LT%	LR%	EA%	SF%	SC%	
44.2 - 12 Ar 90% - 4 - 12 Ar 90% - 44.2 st	53	17	49	30	0.34	0.7
44.2 - 12 Ar 90% - 4 - 12 Ar 90% - 44.2 st	54	18	48	31	0.36	1.0
44.2 - 12 Ar 90% - 4 - 12 Ar 90% - 44.4 st	54	18	48	31	0.36	1.0
44.2 - 12 Ar 90% - 4 - 15 Ar 90% - 44.4	52	17	49	30	0.34	0.6
44.2 - 15 Ar 90% - 4 - 15 Ar 90% - 44.2 st	54	18	48	30	0.34	0.8
44.2 - 15 Ar 90% - 4 - 15 Ar 90% - 44.2 st	53	17	49	30	0.34	0.6
44.2 - 15 Ar 90% - 4 - 15 Ar 90% - 44.4 st	52	17	49	30	0.34	0.6
44.2 - 15 Ar 90% - 4 - 15 Ar 90% - 44.6 st	54	18	48	30	0.34	0.8
44.2 - 15 Ar 90% - 44.4 st	59	15	47	33	0.38	1.0
6 - 12 Ar 90% - 4 - 12 Ar 90% - 33.2	54	18	42	31	0.36	0.7

6 - 12 Ar 90% - 4 - 12 Ar 90% - 33.2	56	18	40	32	0.37	1.0
6 - 12 Ar 90% - 4 - 12 Ar 90% - 4	56	18	38	32	0.37	1.0
6 - 12 Ar 90% - 4 - 12 Ar 90% - 44.2	55	18	41	32	0.37	1.0
6 - 12 Ar 90% - 4 - 12 Ar 90% - 44.2	53	18	42	31	0.36	0.7
6 - 12 Ar 90% - 4 - 12 Ar 90% - 44.4	55	18	41	32	0.37	1.0
6 - 12 Ar 90% - 4 - 12 Ar 90% - 44.4	55	18	41	32	0.37	1.0
6 - 12 Ar 90% - 4 - 12 Ar 90% - 44.4	55	18	41	32	0.37	1.0
6 - 12 Ar 90% - 4 - 12 Ar 90% - 44.6	55	18	41	32	0.37	1.0
6 - 12 Ar 90% - 4 - 12 Ar 90% - 44.6	55	18	41	32	0.37	1.0
6 - 12 Ar 90% - 4 - 12 Ar 90% - 8	55	18	40	32	0.37	1.0
6 - 12 Ar 90% - 4 - 12 Ar 90% - 8	53	18	41	31	0.36	0.7
6 - 15 Air - 4 - 15 Air - 8	55	18	40	32	0.37	1.0
6 - 15 Ar 90% - 33.2	60	15	39	34	0.39	1.0
6 - 15 Ar 90% - 33.2	60	15	39	34	0.39	1.0
6 - 15 Ar 90% - 33.2	60	15	39	34	0.39	1.0
6 - 15 Ar 90% - 4	61	15	37	35	0.4	1.0
6 - 15 Ar 90% - 4	61	15	37	35	0.4	1.0
6 - 15 Ar 90% - 4	61	15	37	35	0.4	1.0
6 - 15 Ar 90% - 4 - 15 Ar 90% - 33.2	56	18	40	32	0.37	0.8
6 - 15 Ar 90% - 4 - 15 Ar 90% - 4	56	18	38	32	0.37	0.8
6 - 15 Ar 90% - 4 - 15 Ar 90% - 44.2	55	18	41	32	0.37	0.8
6 - 15 Ar 90% - 4 - 15 Ar 90% - 44.2	55	18	41	32	0.37	0.8
6 - 15 Ar 90% - 4 - 15 Ar 90% - 44.4	55	18	41	32	0.37	0.8
6 - 15 Ar 90% - 4 - 15 Ar 90% - 44.6	55	18	41	32	0.37	0.8
6 - 15 Ar 90% - 4 - 15 Ar 90% - 8	53	18	41	31	0.36	0.6
6 - 15 Ar 90% - 44.2	59	15	40	34	0.39	1.0
6 - 15 Ar 90% - 44.4	59	15	40	34	0.39	1.0
6 - 15 Ar 90% - 44.4	59	15	40	34	0.39	1.0

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6 - 15 Ar 90% - 44.6	59	15	40	34	0.39	1.0
6 - 15 Ar 90% - 8	59	15	38	34	0.39	1.0
6 - 15 Ar 90% - 8	59	15	38	34	0.39	1.0
6 - 16 Ar 90% - 4	60	13	38	28	0.32	1.0

Vision-36T

As an extension of the coating characteristics and applications development, Stopray Vision 36T is a temperable glass with one of the lowest solar factor (S.F.=22%) and shading coefficients (S.C.=0,25) in the market. Stopray Vision 36T is therefore the best solution for hot climates to maximize energy savings and for roof applications in all weathers.

Key benefits:

- Extremely low S.F. (22%)
- Controlled LT (36%)
- 1.0 Ug-value and increased comfort and energy savings
- Stopray Vision 36T is temperable
- Provides neutral bluish aesthetics and a soft reflection

Enjoy the performances of combining AGC's soft and hard coatings....a whole range of 0.9 U-g value products! By combining the Stopray coating in #2 and a Planibel G Fast in #4 you can significantly enhance the thermal performances of your insulating glass, reaching then a Ug-value of 0.9 W/(m².K)!



Ultra-50 on Clearvision

Stopray Ultra-50 on Clearvision is a high performance soft-coated glazing with an innovative triple silver coating, applied in a vacuum, allowing you to maximise the light transmission while significantly reducing the solar heating. Stopray Ultra-50 on Clearvision is always produced on Planibel Clearvision, AGC's extra-clear glass, to ensure greater transparency and to reduce the risk of thermal shock.

Key benefits :

- The high light transmission level (L.T. = 49%) maximises natural light, yielding all the benefits of large indoor spaces bathed in light year round.
- The very low solar factor (S.F. = 23%) reduces solar gain, resulting in significantly lower air conditioning costs.
- Excellent selectivity (ratio of light transmission to solar factor): always higher than 2.
- Superb thermal insulation (thanks to a Ug value of 1.0 W/(m².K)) minimises energy losses, resulting in major energy savings.

In combination with Stratobel, AGC's safety glazing range, Stopray Ultra-50 on Clearvision allows you to benefit from additional safety performance. You can even benefit from high sound insulation performance by having Stopray Ultra-50 on Clearvision on Stratophone, AGC's sound insulation glazing range.



Performances

Ultra-50 on Clearvision

Structure	Light properties (EN 410)		Energy Properties			Ug-Value W/(m ² .K)
	LT%	LR%	EA%	SF%	SC%	
6 - 15 Air - 3	50	18	32	24	0.28	1.3
6 - 15 Air - 4	49	18	33	23	0.26	1.3
6 - 16 Air - 4	50	18	32	24	0.28	1.3
6 - 16 Ar 90% - 3	51	19	41	28	0.32	1.0
6 - 16 Ar 90% - 4	49	18	33	23	0.26	1.0
6 - 16 Ar 90% - 4	50	18	32	23	0.26	1.0
6 - 16 Ar 90% - 4	51	20	31	29	0.33	1.0

6| - 16 Ar 90% - 4

49

18

33

23

0.26

1.0

The data are calculated using spectral measurements that are conform to standards EN 410, ISO 9050 (1990) and WIS/WINDAT.

The Ug-value (formerly k-value) is calculated according to standard EN 673. The emissivity measurement complies with standards EN 673 (Annex A) and EN 12898.

This document is no evaluation of the risk of glass breakage due to thermal stress. For tempered glass: the risk of spontaneous breakage due to Nickel-Sulfide is not covered by AGC Glass Europe. The Heat Soak Test is available on request.

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